

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1-41. (Canceled)

1 42. (Currently amended) A method for determining whether a test colon cell
2 has an ulcerative colitis (UC) or Crohn's disease (CD) phenotype, said method comprising:
3 (a) determining an expression level of each of the following genes in said test colon cell:
4 (i) a macrophage inflammatory protein-2 β (GRO3) gene ~~product in said test colon~~
5 ~~cell;~~
6 (b) ~~determining an expression level of~~ (ii) a neutrophil lipocalin (HNL) gene
7 ~~product in said test colon cell~~;
8 (c) ~~determining an expression level of~~ (iii) a macrophage elastase (MMP-12) gene
9 ~~product in said test colon cell~~;
10 (d) ~~determining an expression level of~~ (iv) an elastase specific inhibitor (elafin)
11 gene ~~product in said test colon cell~~; and
12 (e) ~~determining an expression level of~~ (v) a type VI collagen α 3 chain (COL6A3)
13 gene ~~product in said test colon cell~~;
14 [(f)] (b) comparing the expression level of each of said gene products GRO3, HNL,
15 MMP-12, elafin, and COL6A3 genes in said test colon cell to an expression level of the same
16 gene ~~product~~ in a normal colon cell;
17 [(g)] (c) associating an increase in the expression level of ~~said GRO3 gene product,~~
18 ~~said HNL gene product, said MMP-12 gene product, said elafin gene product, or said~~
19 ~~COL6A3 gene product~~ each of said GRO3, HNL, MMP-12, elafin, and COL6A3 genes in said
20 test colon cell relative to the expression level of the same gene ~~product~~ in said normal colon cell
21 with a UC phenotype in said test colon cell; and

22 [[(h)]] (d) associating an increase in the expression level of each of said MMP-12 **gene**
23 **product or said and elafin gene product genes** in said test colon cell relative to the expression
24 level of the same gene **product** in said normal colon cell and a normal expression level of each
25 of said GRO3, HNL, and COL6A3 genes with a CD phenotype in said test colon cell.

1 43. (Canceled)

1 44. (Canceled)

1 45. (Currently amended) The method of claim 42, **comprising distinguishing**
2 **between** wherein said method distinguishes a UC phenotype [[or]] from a CD phenotype in said
3 test colon cell.

1 46. (Currently amended) The method of claim 42, wherein said test colon cell
2 has a UC phenotype when the expression level of said GRO3 gene product each of said GRO3,
3 HNL, MMP-12, elafin, and COL6A3 genes in said test colon cell is increased relative to the
4 expression level of the same gene **product** in said normal colon cell by at least a factor of two.

1 47. (Previously presented) The method of claim 42, wherein said test colon
2 cell is obtained from a needle biopsy core, a surgical resection sample, or a bowel sample.

1 48. (Currently amended) The method of claim 42, wherein the expression
2 level of said **gene products genes** is determined using Northern blot analysis, reverse
3 transcription-polymerase chain reaction, in situ hybridization, or an array.

1 49. (Currently amended) The method of claim 48, wherein said array
2 comprises:

3 (a) nucleic acid probes of 12-40 nucleotides in length, wherein said nucleic acid probes
4 are complementary to said **gene products genes** and hybridize under high stringency conditions
5 to said **gene products genes**; and

6 (b) a substrate to which said nucleic acid probes are bound.

1 50. (Previously presented) The method of claim 49, wherein said substrate is
2 selected from the group consisting of paper, membranes, filters, chips, pins, and glass.

1 51. (Previously presented) The method of claim 49, wherein said nucleic acid
2 probes are bound to said substrate by covalent bonds or hydrophobic interactions.

1 52. (Previously presented) The method of claim 49, wherein said nucleic acid
2 probes are spotted onto said substrate in a two-dimensional matrix or array.

1 53. (Canceled)

1 54. (Currently amended) The method of claim 42, wherein said test colon cell
2 has a CD phenotype when the expression level of each of said MMP-12 **gene product** and elafin
3 genes in said test colon cell is increased relative to the expression level of the same gene
4 **product** in said normal colon cell by at least a factor of two and the expression level of each of
5 said GRO3, HNL, and COL6A3 genes is normal.

1 55. (Canceled)

1 56. (Canceled)